

## PROJECT FINAL REPORT

### Model Performance Test

TEAM ID : B59ACB2EE24AC56B74C4C89695327FAA

TEAM LEAD : Aaraniga R

TEAM NUMBER : 18

TEAM MEMBER 1 : VandhanaSri

TEAM MEMBER 2 : Ashwin AK

TEAM MEMBER 3 : Pirathiswari

PROJECT NAME : Unleashing the potential of the youth: student performance analysis

## 1.INTRODUCTION:

### PROJECT OVERVIEW:

1. The system should provide a user-friendly interface to input and manage students' performance data, including grades, attendance, and test scores.
2. It should allow me to generate customizable reports and visualizations that provide insights into students' academic performance by subject, class, or specific time periods.
3. I should be able to identify trends and patterns in students' performance through graphical representations, such as charts and graphs.
4. The system should support the ability to compare students' performance across different parameters, such as gender, grade level, or specific demographic groups.
5. It should provide the capability to set benchmarks or targets for academic performance and generate alerts or notifications when students fall below or exceed these thresholds.
6. I should be able to track students' progress over time and visualize their growth or improvement using historical data

## **PURPOSE**

The purpose of the Students Performance Analysis Project is to provide a comprehensive system for analyzing students' academic performance data. The project aims to assist school administrators in gaining insights into student performance, identifying areas of improvement, tracking progress, and making data-driven decisions to enhance academic outcomes.

### **Model Performance Testing:**

Project team shall fill the following information in model performance testing template.

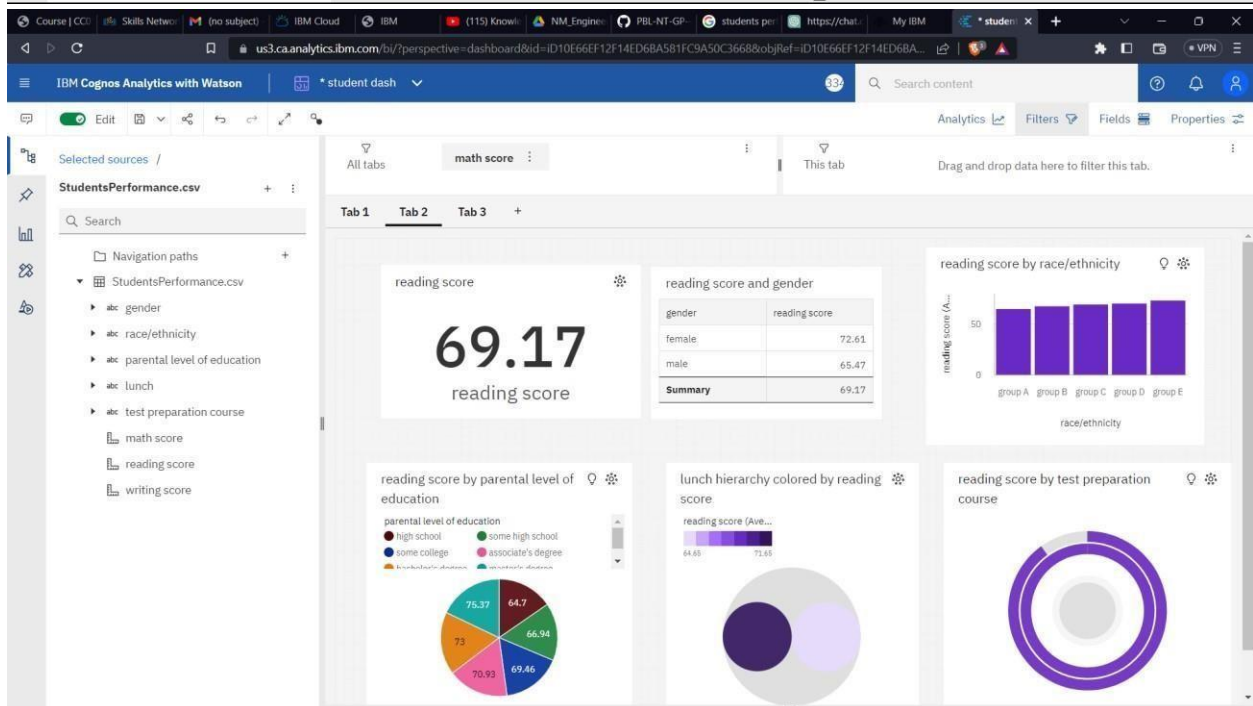
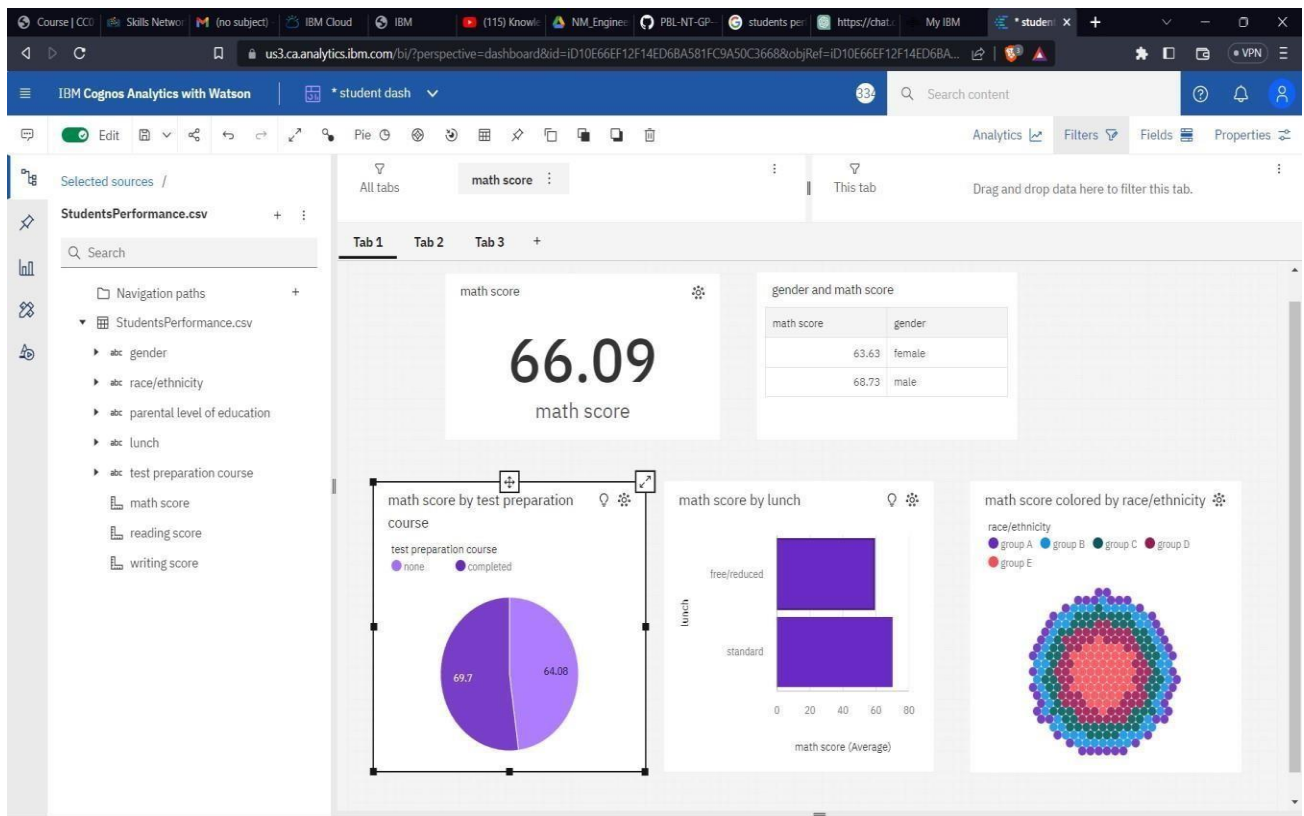
### **Dashboard design...**

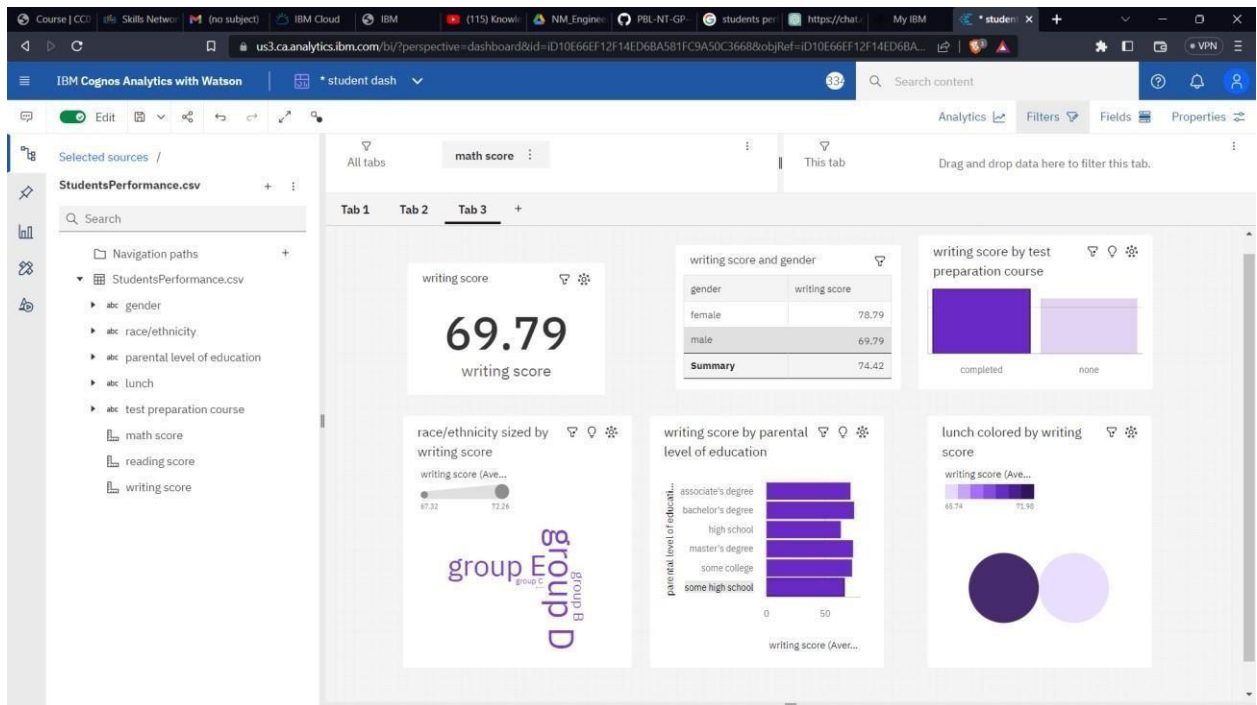
The goal of dashboard design is to present complex information in a clear, concise, and visually appealing way, enabling users to quickly understand and interpret the data.

### **No of visualizations - 3**

Here I have created 3 dash boards

1. For reading score
2. For writing score
3. For Math score





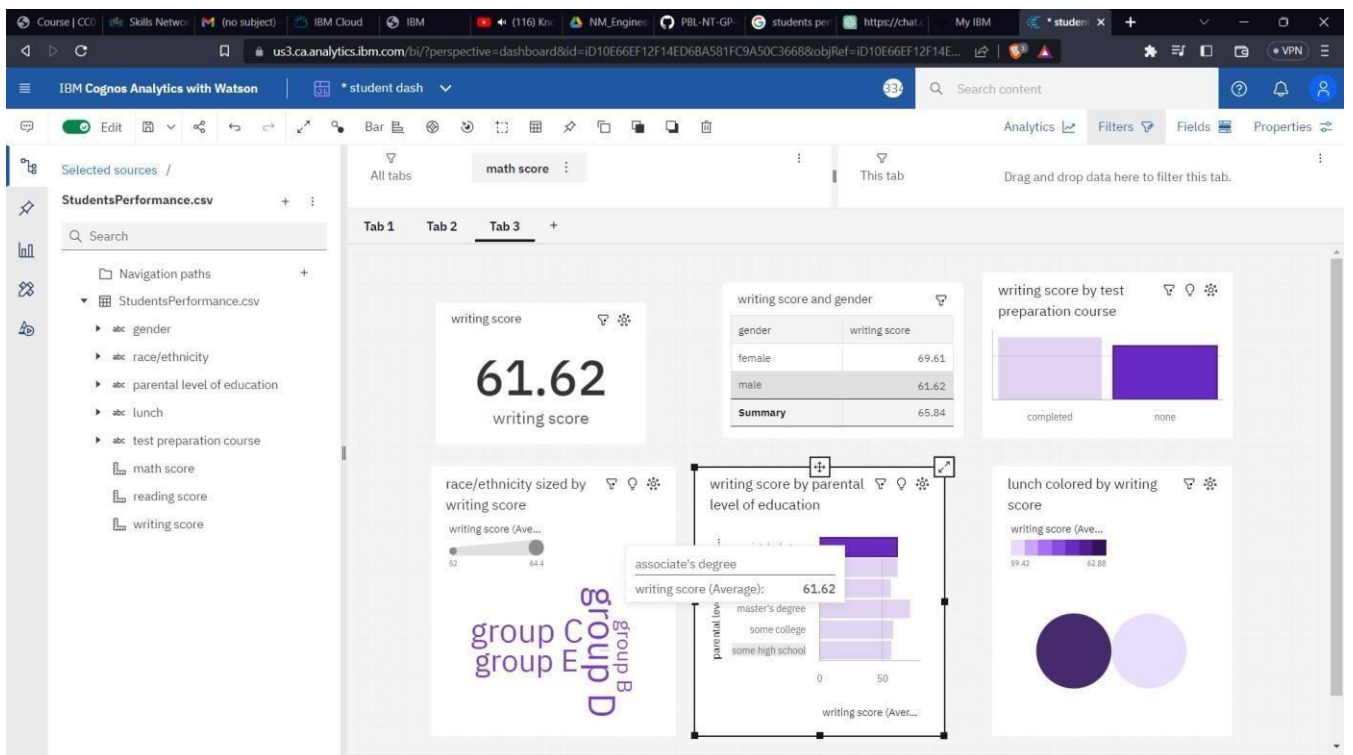
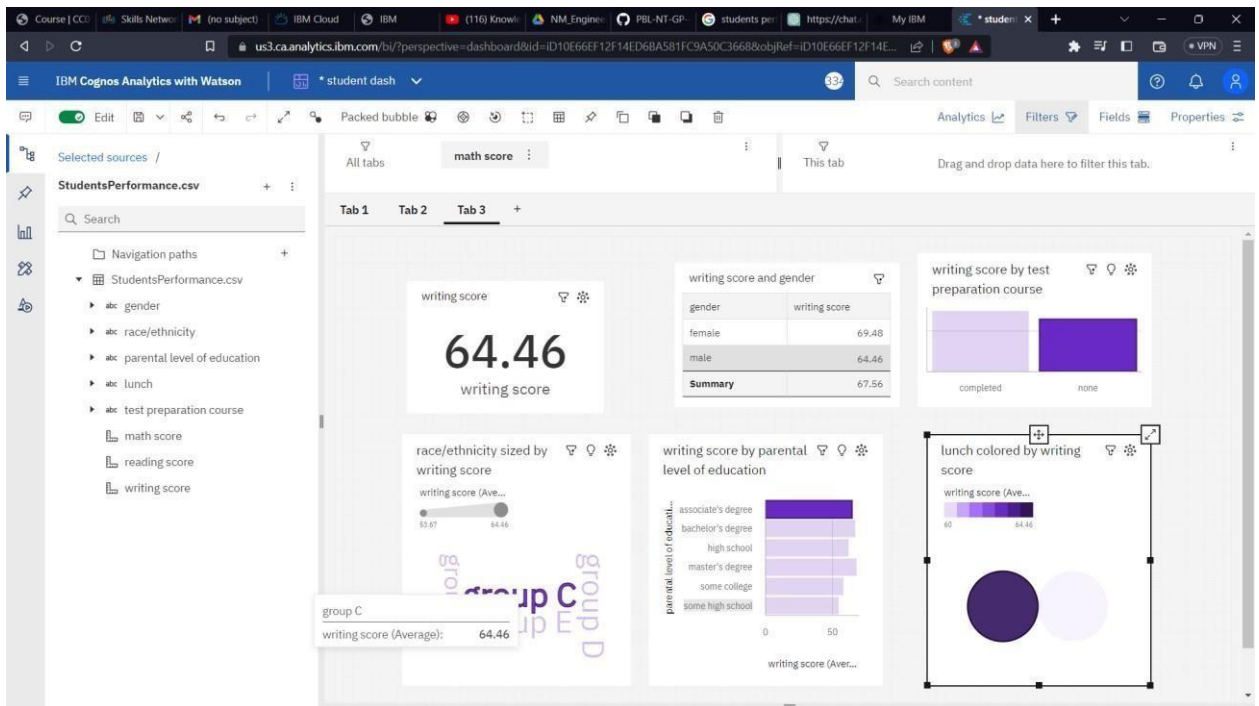
## Data Responsiveness

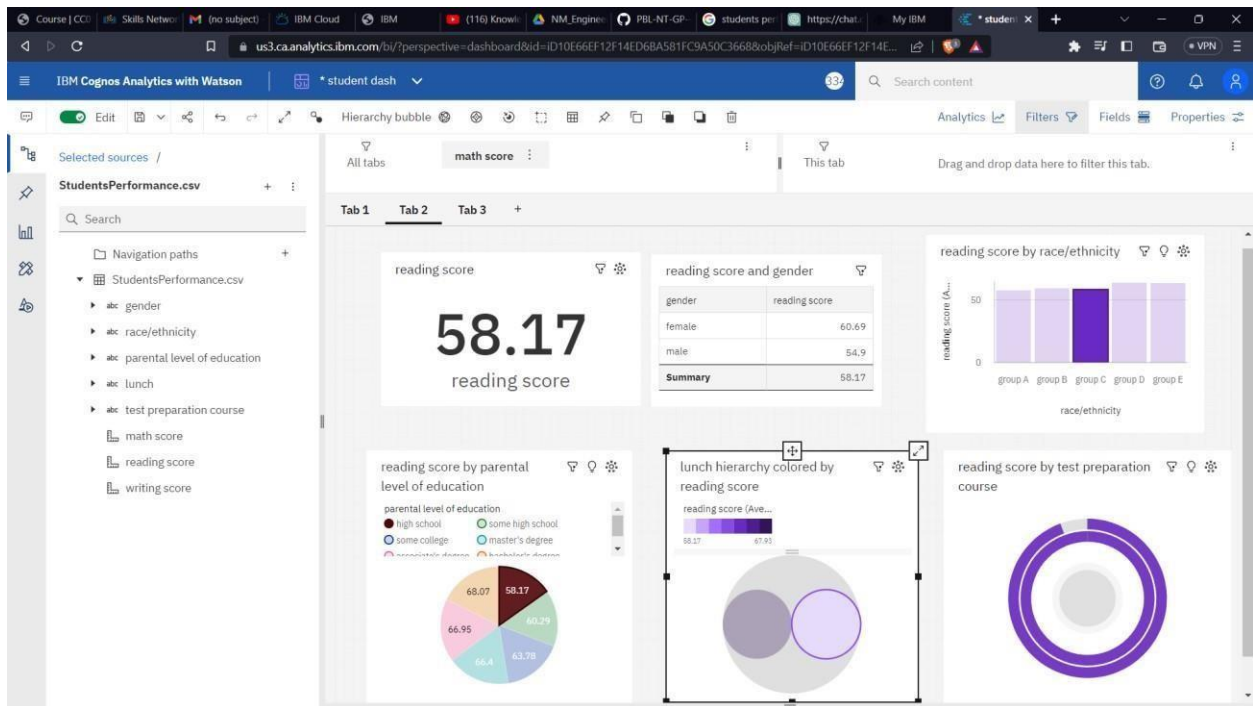
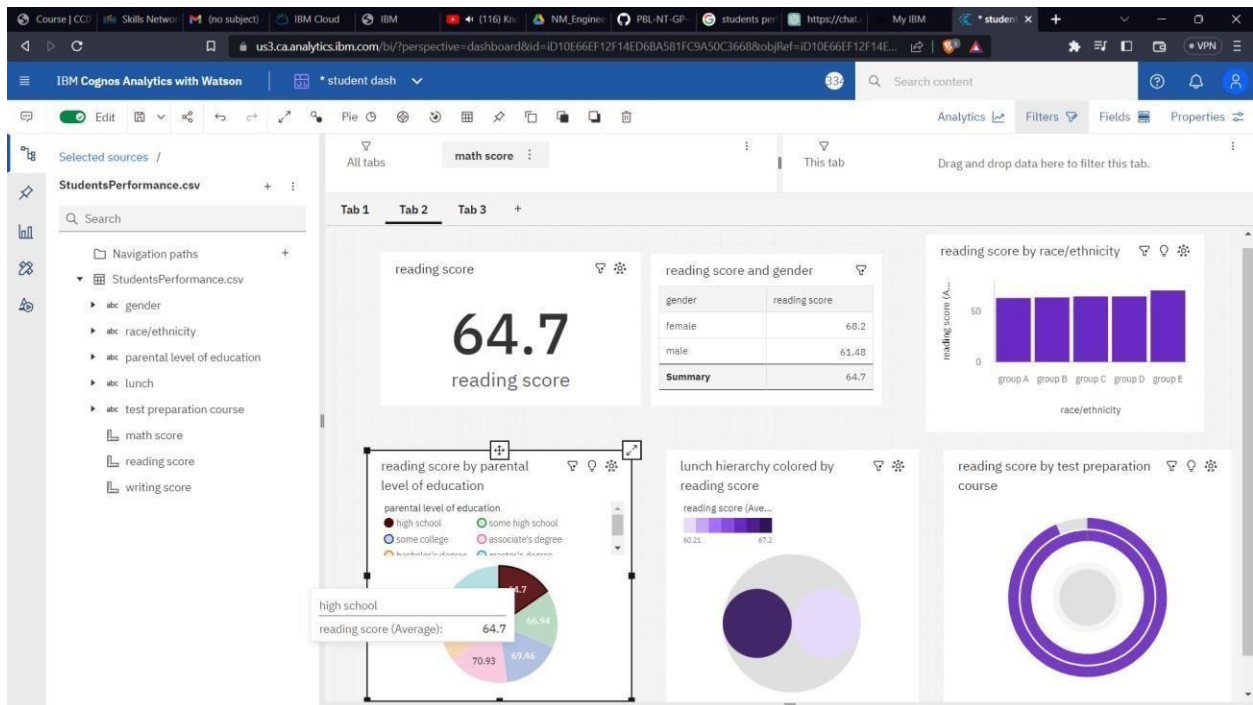
Data responsiveness for the dashboard was quick. For every given visualization, we can see the particular or the individual chart or graph highlighted in the dashboard .....

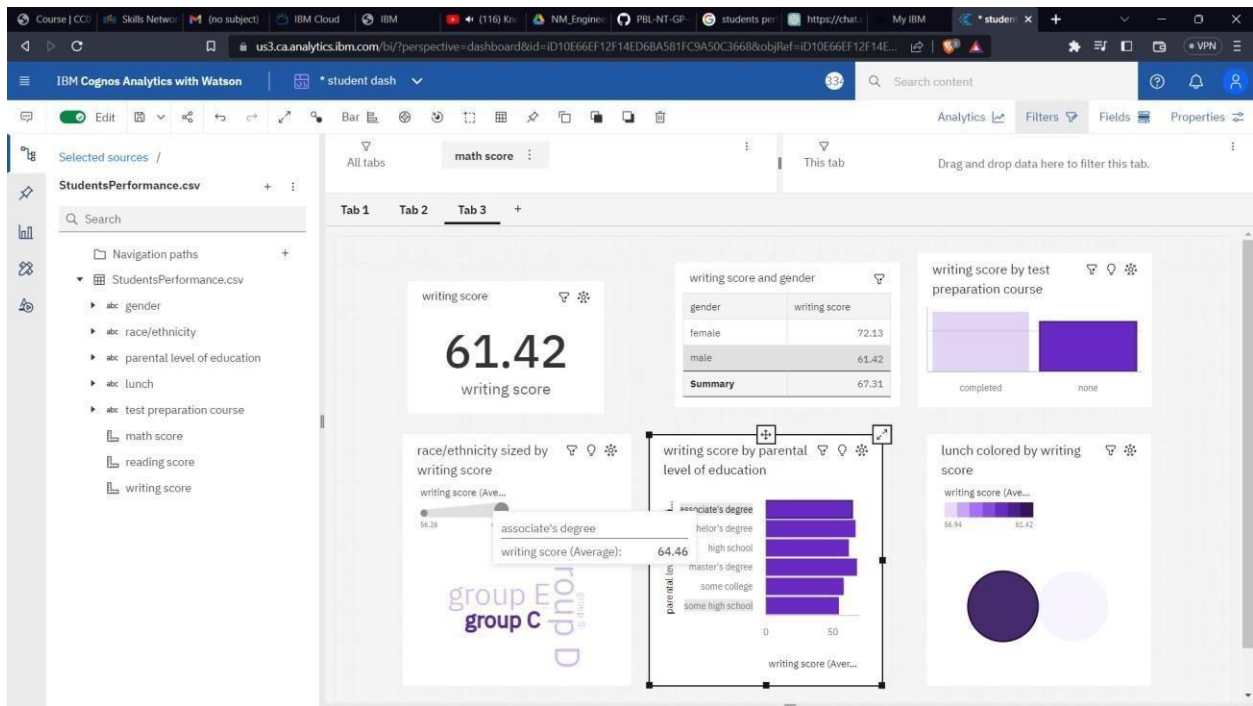
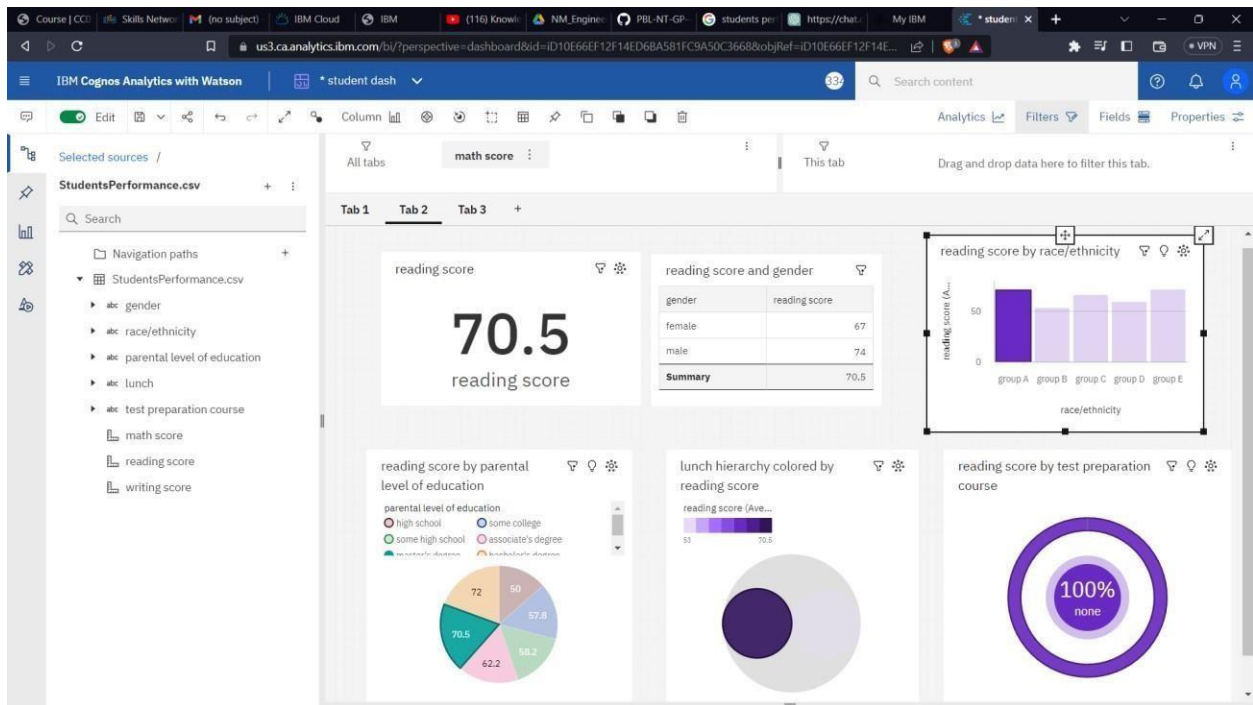
For all the three dashboards .....

1. For reading score
2. For writing score

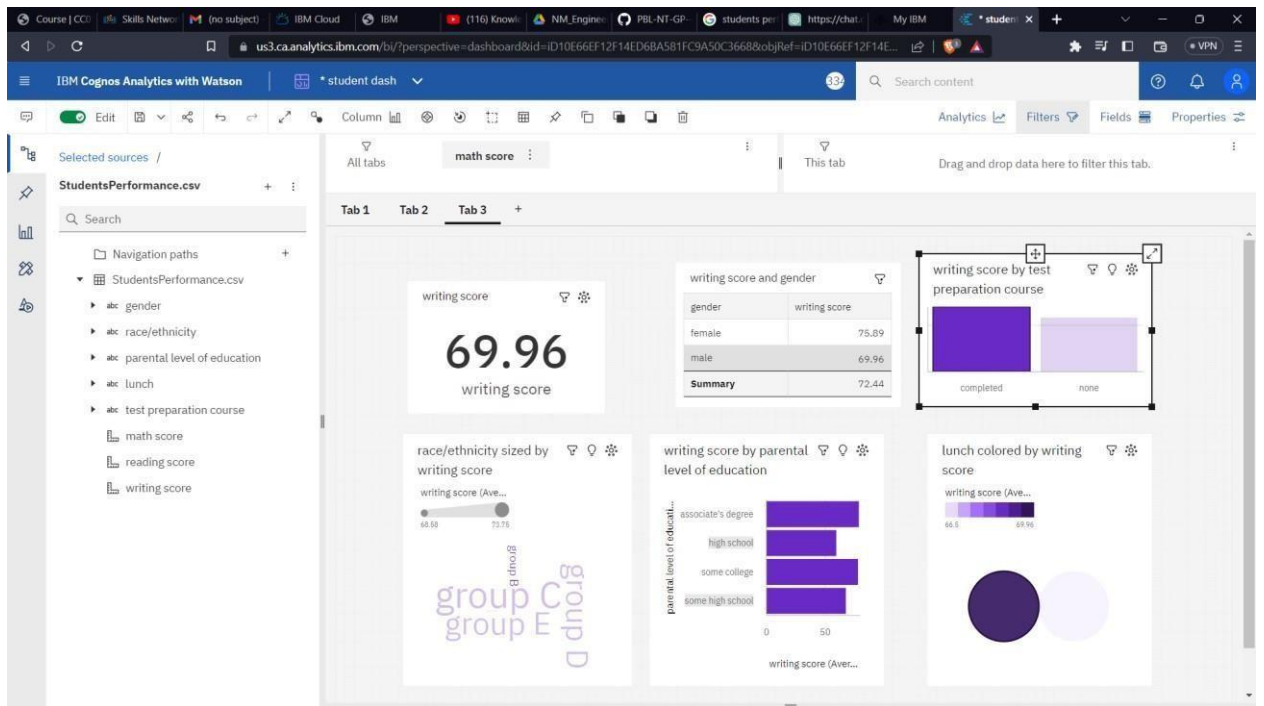
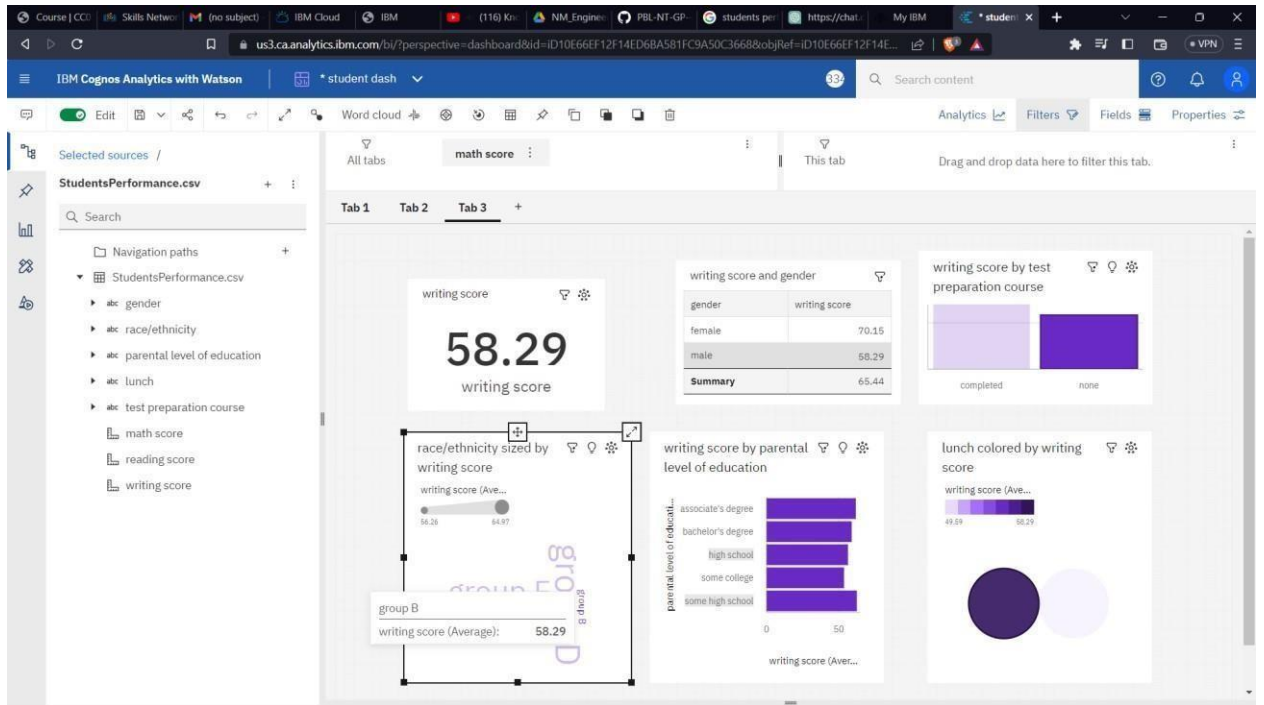
### 3. For Math score









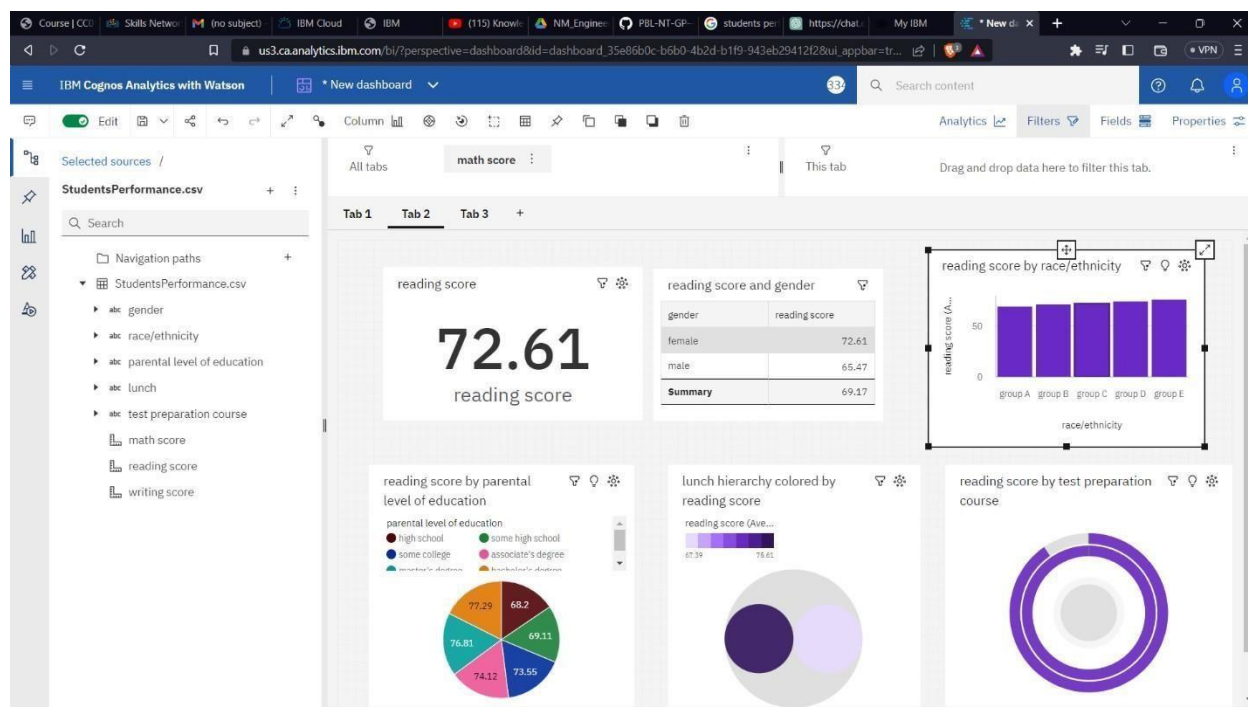


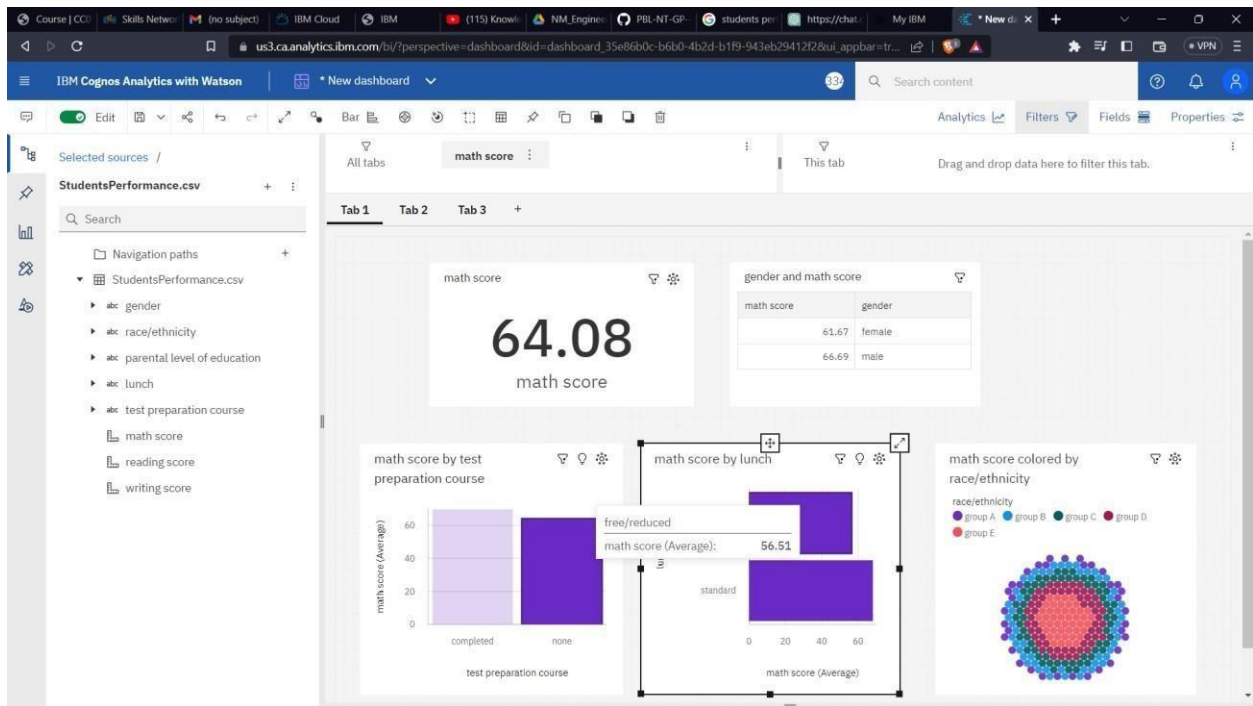
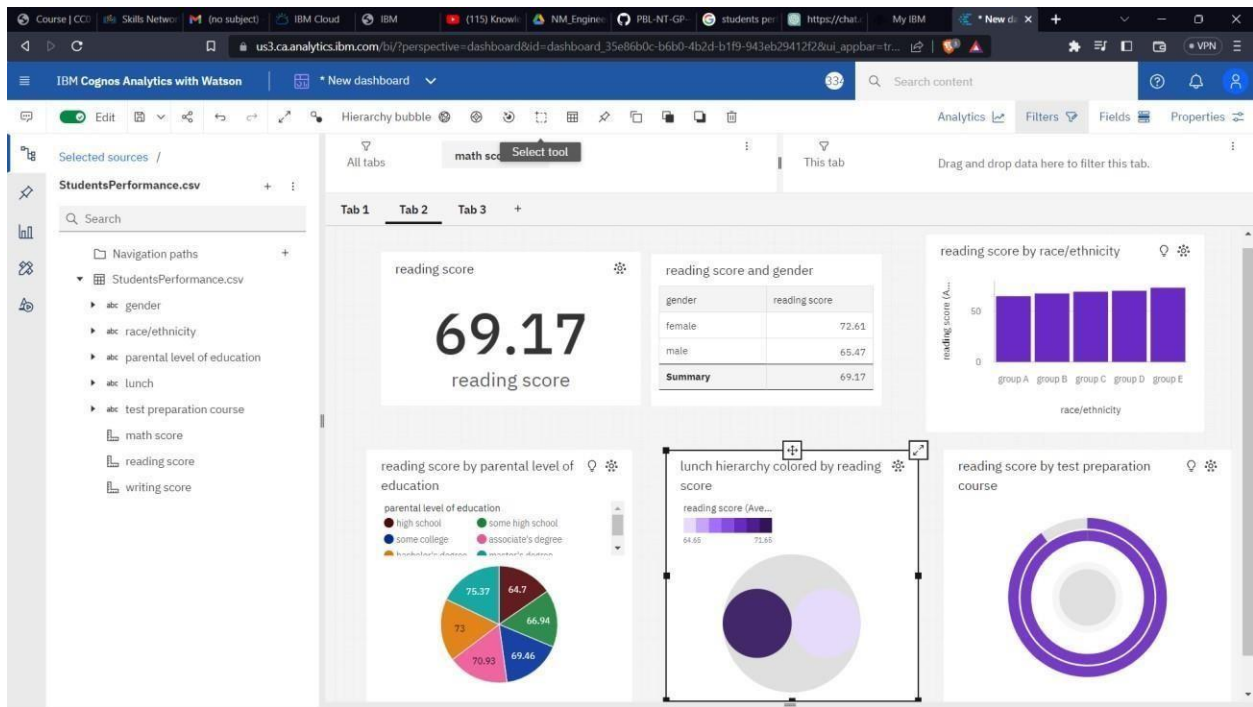


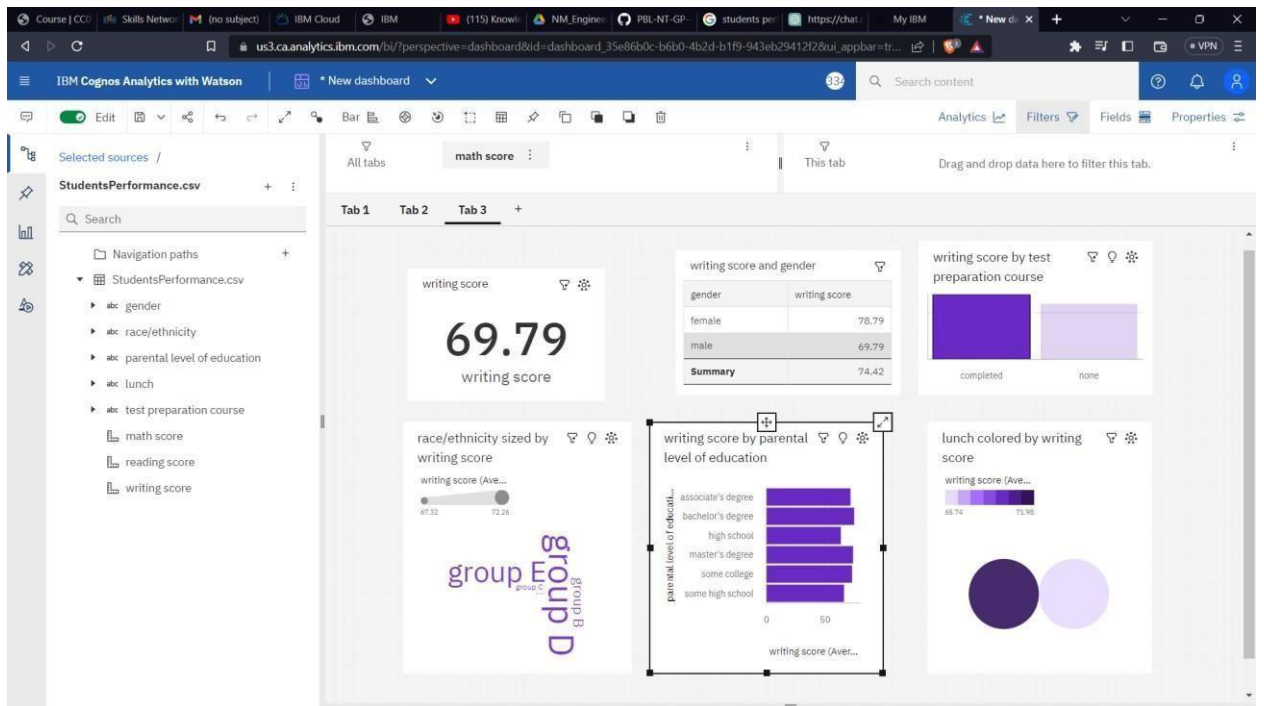
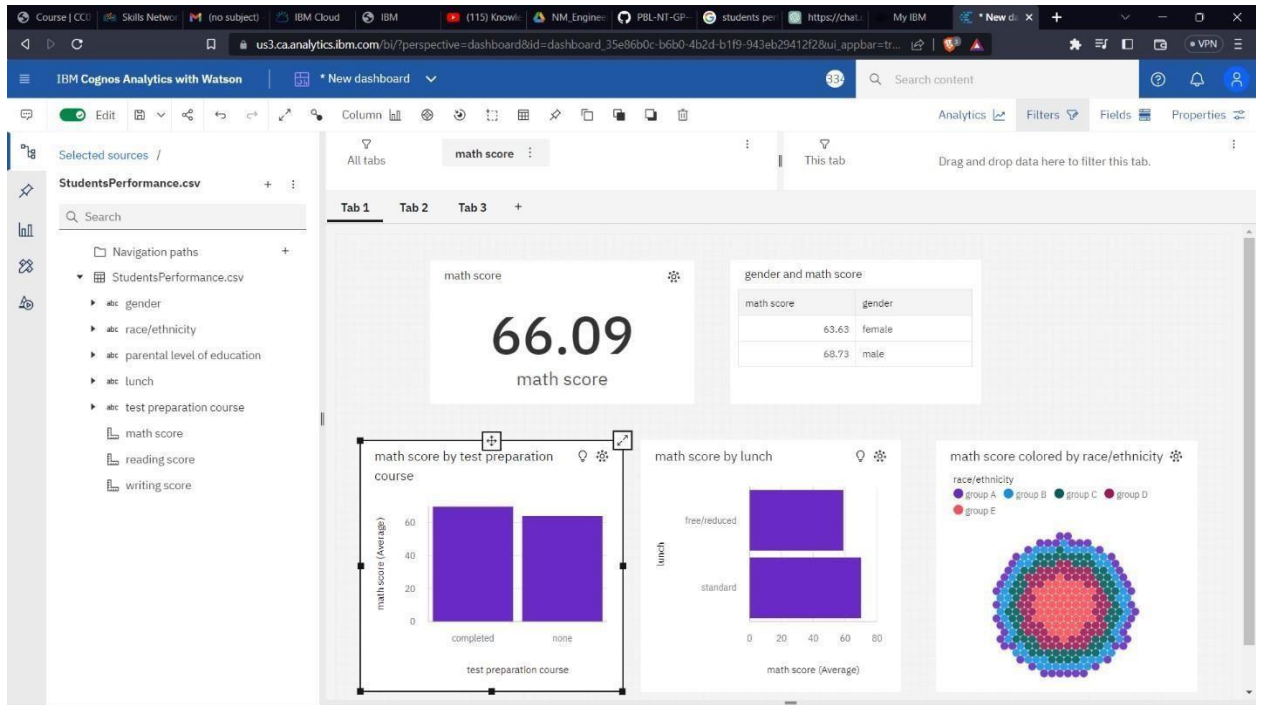
## Utilization of data filters

Data filters are used so the dashboards can be clearly visualized and filters applied in the dashboard show the uniqueness of the data in the students performance analysis.....

Filtered dashboard are highlighted below .....

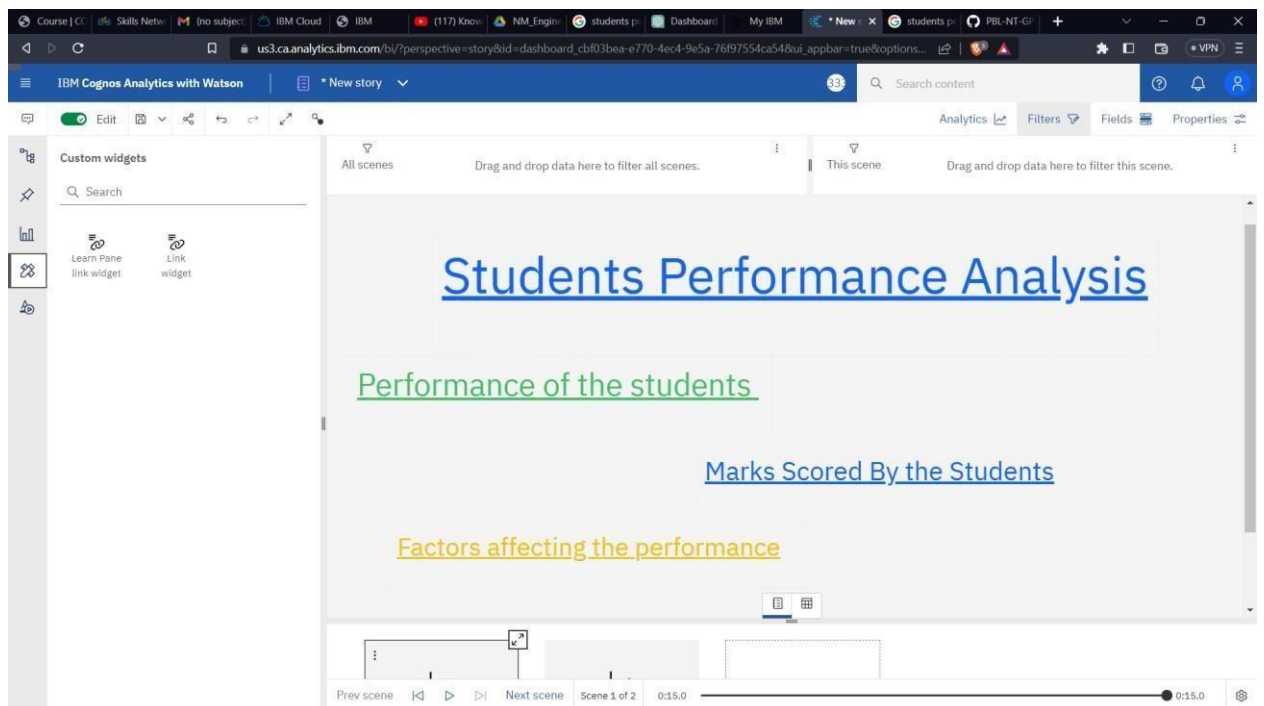


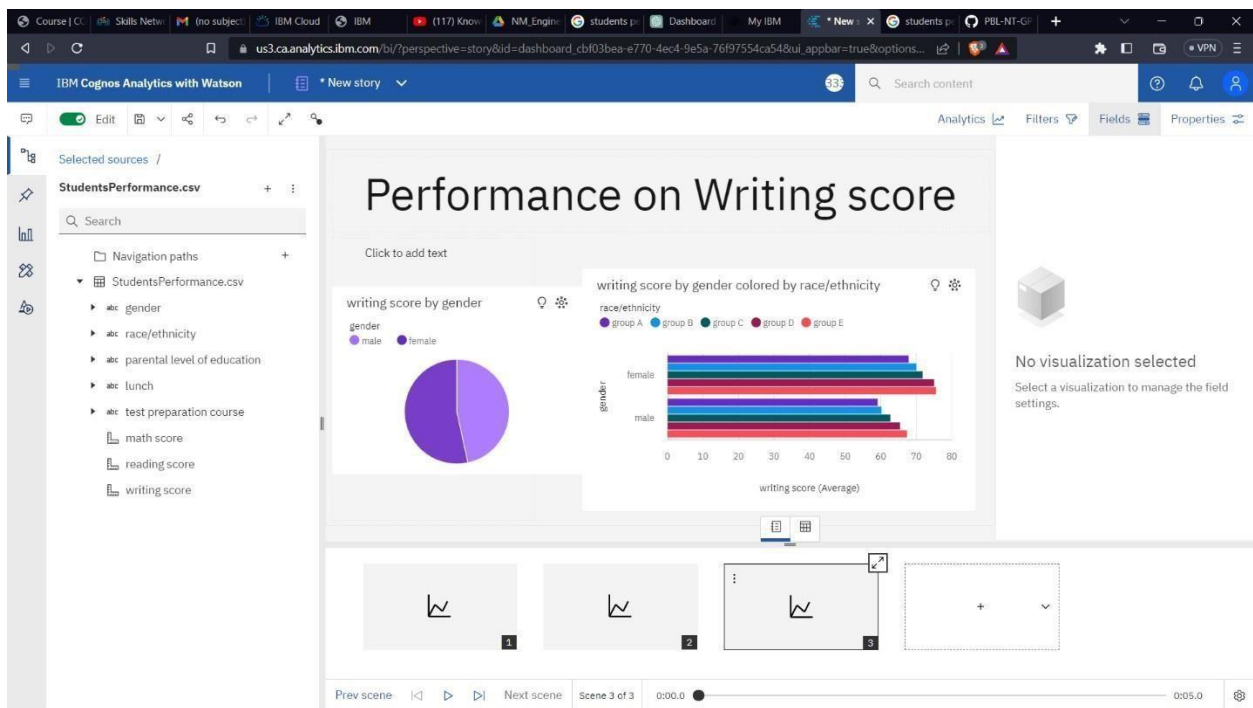
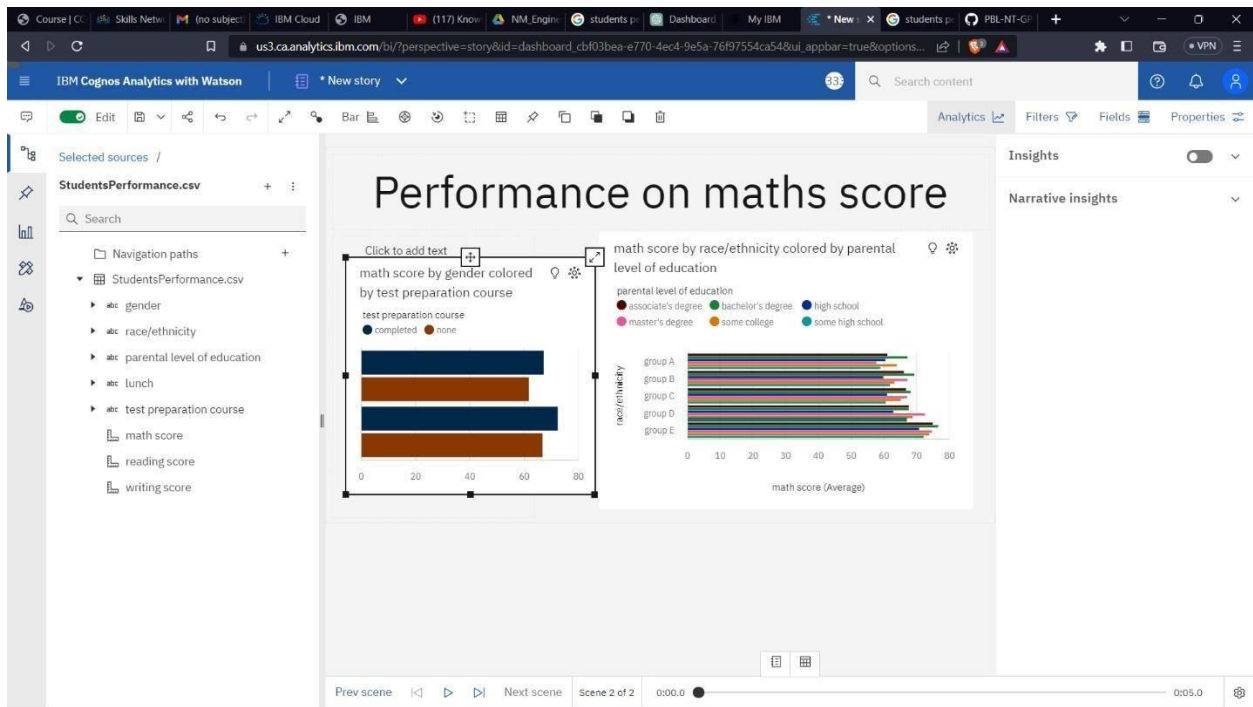


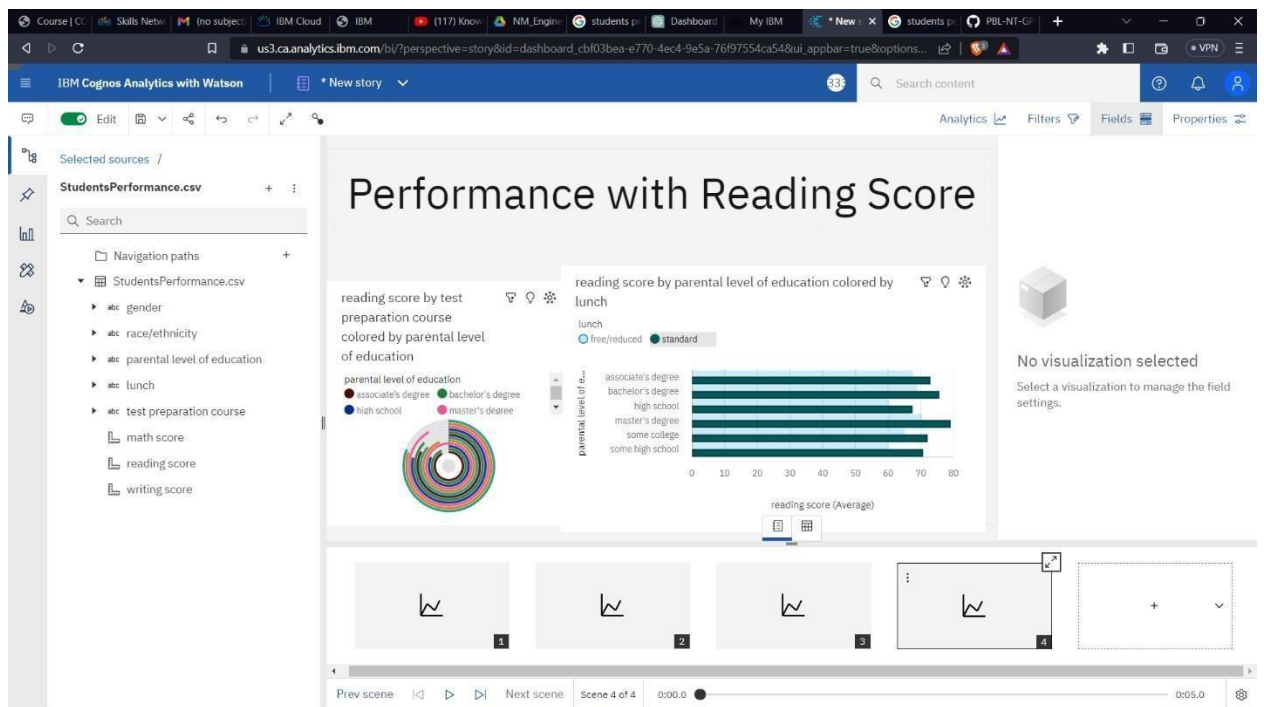


## Effective User Story

it follows a specific format and is used in Agile software development methodologies, such as Scrum, to capture requirements from the perspective of the end user or customer. User stories are typically written on index cards or in digital format and serve as a communication tool between the development team and stakeholders.





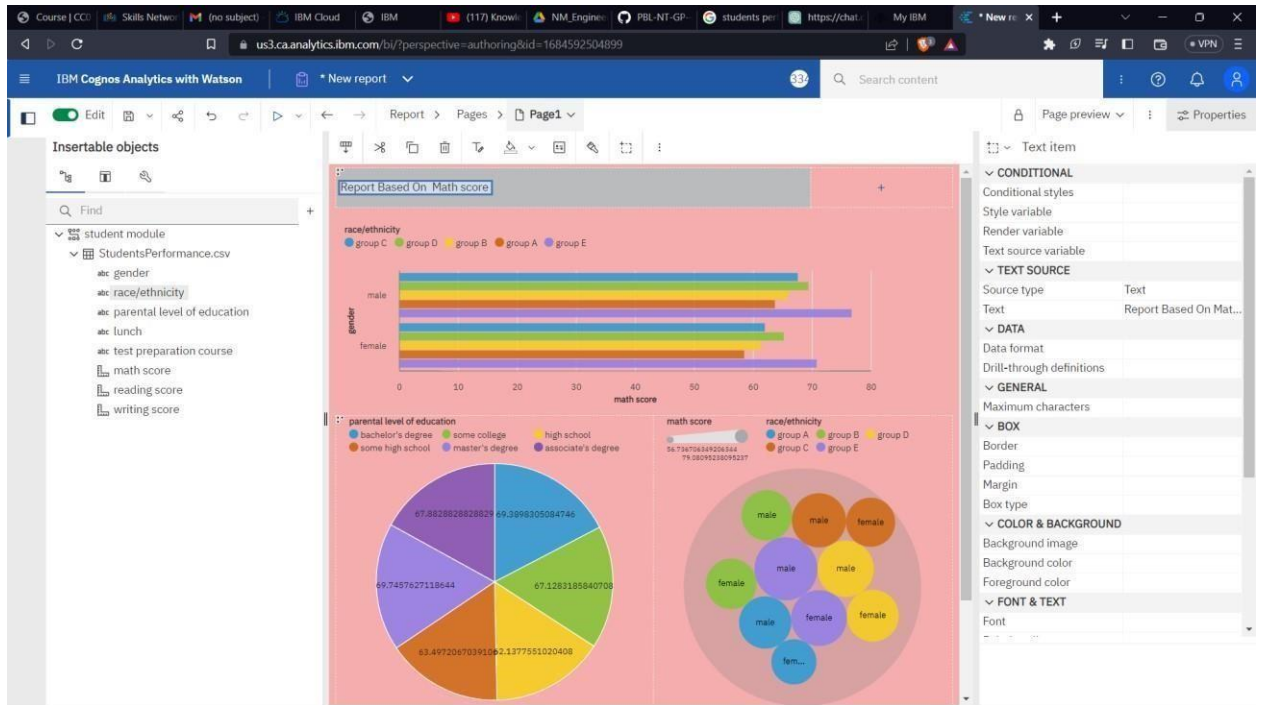


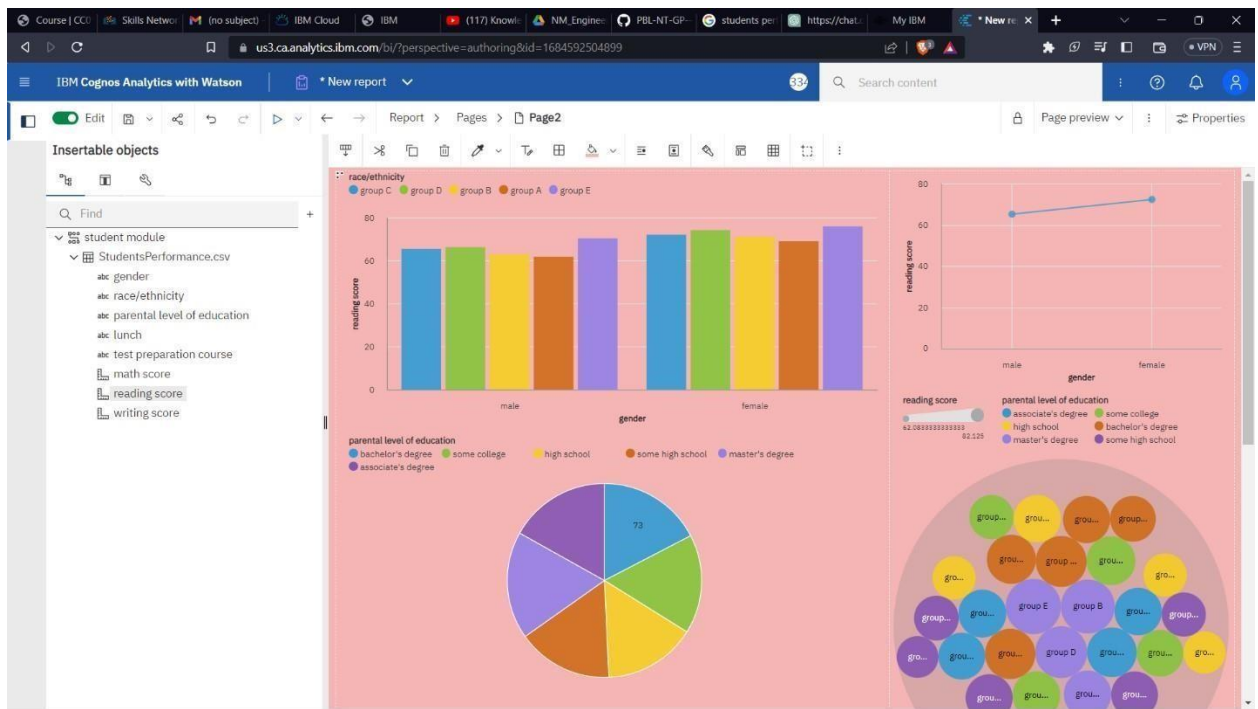
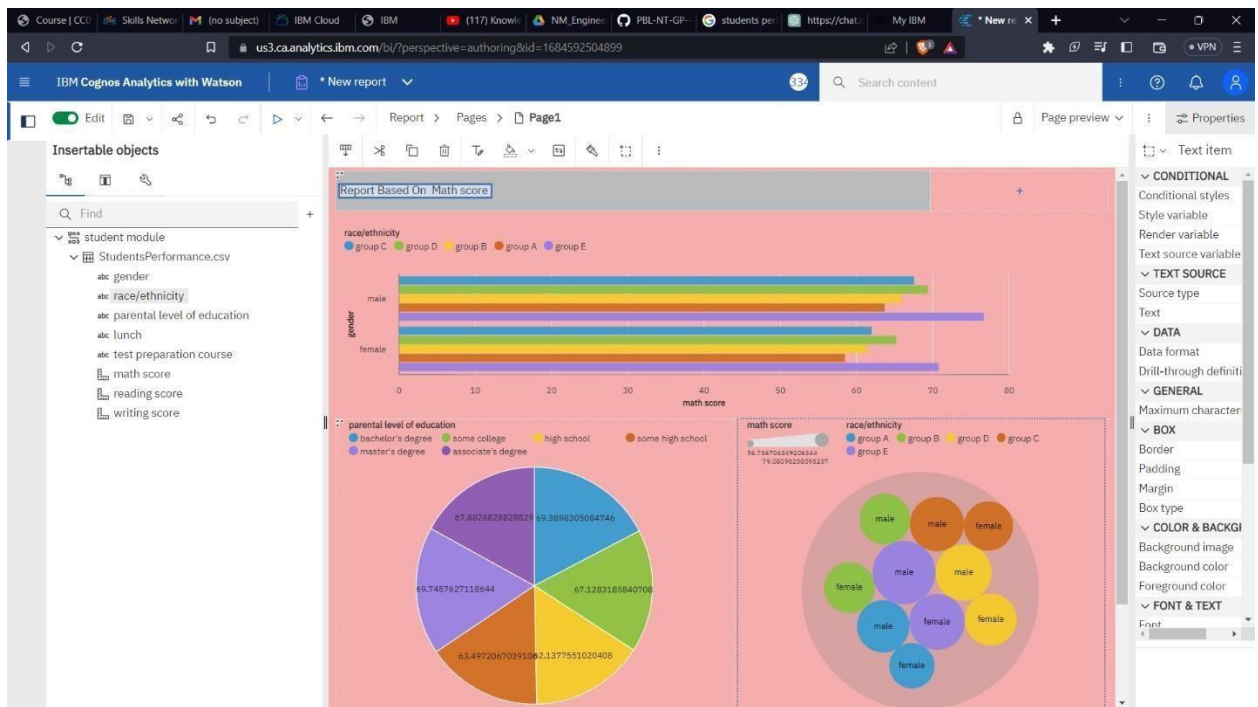
## Descriptive Reports

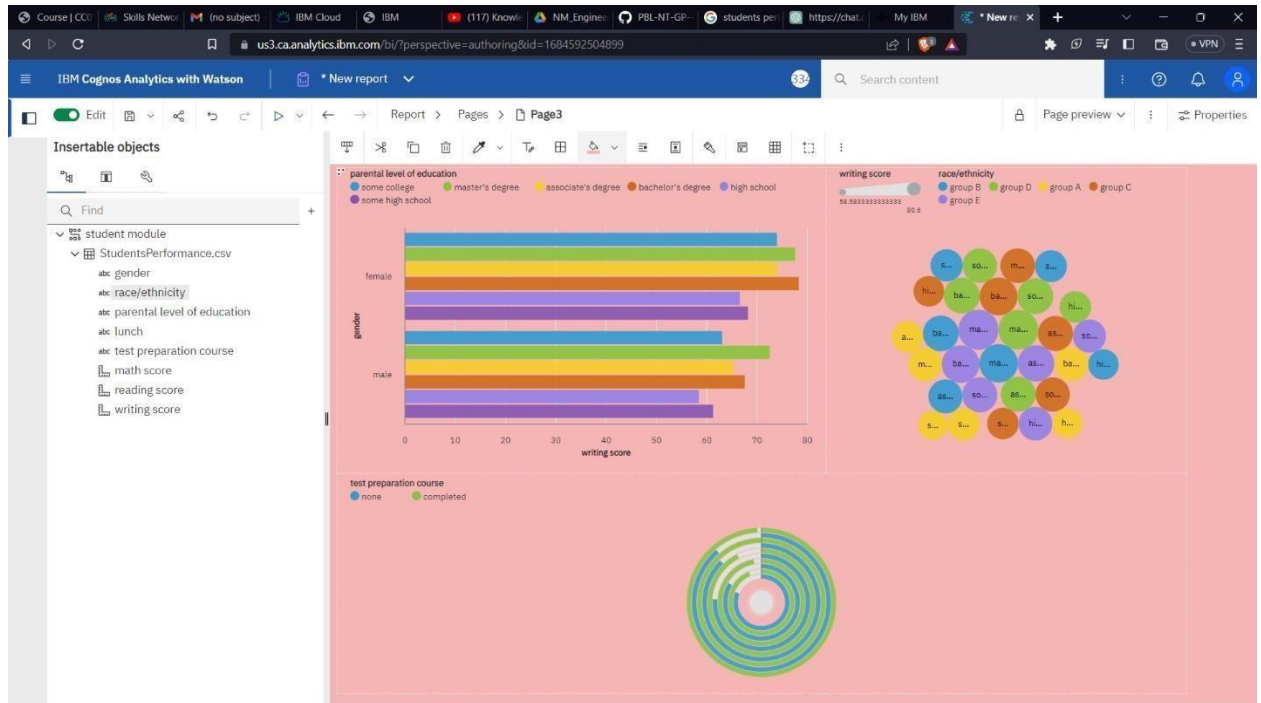
This reports are created based on the dashboard and user story . the reports show a clear view of the work that we have done so far. The report created in cognos analytics with watson shows a final output of the students performance analysis.....

Here we have 4 visualizations for the report









## FUTURE SCOPE

The future scope of the Students Performance Analysis Project can involve several potential enhancements and expansions. Here are some possibilities for further development and improvement:

1. **Predictive Analytics:** Implementing predictive analytics algorithms can enable the system to forecast students' future performance based on historical data and other relevant factors. This can help identify early warning signs for struggling students, allowing administrators to intervene proactively and provide timely support.
2. **Integration with Learning Management Systems (LMS):** Integrating the performance analysis project with existing Learning Management Systems can provide a more comprehensive view of students' academic journey. This integration can enable the system to pull data on assignments, course progress, and student engagement, providing a holistic analysis of performance.

## Advantages

There are several advantages to performing analysis on students' performance. Here are some key benefits:

1. **Identifying Strengths and Weaknesses:** Performance analysis helps educators and administrators understand the strengths and weaknesses of individual students and groups. It allows them to identify areas where students excel and areas that require improvement. This knowledge can guide instructional strategies, curriculum development, and targeted interventions.
2. **Personalized Learning:** By analyzing students' performance, educators can tailor instruction to meet individual needs. They can identify specific areas where students struggle and provide targeted support and resources to help them improve. Personalized learning enhances student engagement and promotes academic growth.
3. **Curriculum Evaluation:** Performance analysis provides valuable insights into the effectiveness of the curriculum. Educators can assess whether the curriculum aligns with the desired learning outcomes, identify gaps in knowledge and skills, and make informed decisions about curriculum modifications or enhancements.

4. Early Intervention: Performance analysis enables early identification of struggling students. Educators can intervene promptly to provide additional support, resources, or interventions to prevent further academic challenges. Early intervention improves the chances of success for students who may otherwise fall behind.

## Disadvantages

While there are several advantages to students' performance analysis, it's important to consider potential disadvantages as well. Here are a few possible drawbacks:

1. Overemphasis on Standardized Testing: Performance analysis often relies heavily on standardized tests and assessments. Overemphasizing these measures can lead to a narrow focus on test preparation and teaching to the test, potentially neglecting the development of critical thinking, creativity, and other important skills that are not easily captured by standardized assessments.
2. Narrow Assessment of Learning: Performance analysis primarily focuses on academic performance, such as test scores and grades. This narrow view

may overlook other aspects of students' abilities, such as social skills, emotional intelligence, leadership qualities, or practical skills that are crucial for holistic development.

3. **Pressure and Stress:** Excessive emphasis on performance analysis can create a high-pressure environment for students. They may feel intense stress and anxiety to achieve high grades or meet specific performance targets. This pressure can have negative effects on mental health and well-being, leading to burnout, decreased motivation, and a fear of failure.
4. **Labeling and Stigmatization:** Performance analysis can sometimes result in labeling and stigmatizing students based on their performance. Students who consistently perform below average may be labeled as "low achievers" or "struggling students," which can impact their self-esteem and limit their future opportunities. It is important to approach performance analysis with a focus on growth and improvement rather than rigid categorization.
5. **Unrealistic Comparisons:** Comparing students' performance against each other or against predefined standards may not accurately reflect their individual progress or potential. Each student has unique strengths, challenges, and circumstances that can



influence their performance. Over-reliance on comparisons can undermine the value of individual growth and discourage students who do not meet predefined benchmarks.

6. Limited Scope of Assessment: Performance analysis often relies on quantitative

## CONCLUSION-

In conclusion, the Students Performance Analysis Project provides school administrators with a powerful tool to analyze and make data-driven decisions regarding students' academic performance. By leveraging real-time data and visualizations, administrators can gain valuable insights, track progress, and identify areas for improvement.

The project's future scope includes the potential for predictive analytics, integration with Learning Management Systems, individualized learning plans, and collaboration tools. These enhancements can further optimize student support and personalize educational interventions.

By utilizing the Students Performance Analysis Project, administrators can improve academic outcomes, support student success, and foster a data-driven educational environment. With the ability to monitor, analyze, and act

on performance data, administrators are empowered to make informed decisions that positively impact student learning and achievement.

THANK YOU.....

GITHUB LINK- [https://github.com/Aaraniga/Nan-Mudhalvan-\\_Unleashing-The-Potential-Of-Our-Youth-A-Student-Performance-Analysis](https://github.com/Aaraniga/Nan-Mudhalvan-_Unleashing-The-Potential-Of-Our-Youth-A-Student-Performance-Analysis)

VIDEO DEMO LINK-

<https://clipchamp.com/watch/X8EA6kAzoS4> Link

website link -

<https://www.youtube.com/watch?v=ZYWwopuZkXw>